Furthermore, during the summer months, large numbers of families leave the malocas and build flimsy huts in the heart of the woods, where in their isolation they encounter more abundant game.

It is certain, however, that this tribe is one of the largest and most powerful in the valley of the Amazon. Alcide d'Orbigny hesitated whether to consider it a mere tribe or a nation. It has long been a strongly organized republic. The central malocas, located beyond the active reach of our authorities, enjoy the same boundless freedom as if they formed an independent State.

In face of the impossibility to carry out by myself a strict census, I must rely on the opinion of a citizen who resides in the town of Itaituba and whom I judge to be very competent in this matter. I refer to Lieutenant Joaquim Caetano Corrêa, a wealthy tradesman who was nominated to the post of superintendent of the Tapajoz River Indians by Councillor Sebastião do Rego Barros, President of Pará, in September 1853, and who has exercised this function ever since.

Although this respected citizen has never been to the central villages, he nevertheless entertains close relations with the Mundurucu who live along the banks of the Tapajoz. [101]

Here is the population table furnished by Lt. Joaquim Caetano Corrêa.

NAME OF THE MALOCAS	POPULATION
Dauapone	1,500
Carucupi	2,300
Daïri	2,600
Capipique	2,000
Necodemos	2,100
Aikâ (Samuuma)	1,500
Acupari	800
Areucré	700
Arebaduri	400
Teiu Curupi	500
Ipsananti	600

But the Munduruca are cultivators and hunters. Their crude husbandry cannot provide them with plentiful resources. And hunting, even on those plains that teem with game, could never supply with regularity a large population center. As game becomes less abundant, the hunters are forced to wander ever farther to find it.

The need and taste for hunting, instead of bringing men together, tends on the contrary to isolate them increasingly, for isolation is the only means of avoiding competition in this sport upon which their very existence actually depends.

No other motive is to be sought for the dispersal of Munduruca families during the summer months. As already mentioned above, I came upon some of those families in the course of my travels, living in huts in the midst of the woods or on the banks of the Cadcreri.

In spite of everything, however, the tribe remains strongly united although divided into twenty villages.

It is true that the villages owe allegiance to no central government, either civil or religious; but the moral bonds which hold together all the villages and all the individual members of the tribe are so strong that they have withstood all divisive influences through the long history of the tribe. [113]

Among the Munduruca, marriage consists of a simple agreement between the marriage partners and their families, and is not invested with any religious character or formulas.

Sometimes a Munduruca is betrothed to a young girl through an agreement with her family, and thenceforth treats her as his future wife, supplying her with game and other means of subsistence until she reaches puberty and the marriage is consummated.

From the moment of the agreement, the betrothed girl is respected by all as such, and no one dares dispute her with the man destined to become her husband.

The marriage, once celebrated, constitutes a strong bond between the spouses. Polygamy is not practiced in this tribe, and scenes of jealousy are not infrequent.

The village women, though overburdened with work, are treated with a certain regard; they are not even permitted to enter the oca or warriors' quarters.

4: Horton E-4 (no date) 1948
SQ13 Mundurucu SQ13

Santarém and *Cumaju* in 1780 and again in 1784. They attacked the *Mawe* in the Madeira River region and a few years later dispersed their southern neighbors, the *Parintintin* (*Canamixi*). Their next expedition, involving an army of some 2,000 warriors, is said to have crossed the Xingú and Tocantins Rivers and to have reached the western limits of Maranhão Province. The expedition is said to have been defeated and turned back by the *Apinayé* (see Steinen, 1937), but according to Nimuendajú, it may be doubted that the *Mundurucú* actually went so far east. A Neo-Brazilian punitive force fought a 3-day battle with them on the Rio de Tropas (ca. 1794). Peace was established in 1795 or 1796.

Except for minor conflicts with neighboring tribes, the *Mundurucú* abandoned warfare and gradually relinquished the great territory they had seized. Missions were established on the Tapajós in 1799 and on the Madeira in 1811. By 1885, the *Mundurucú* still living on the Madeira River had been sufficiently acculturated to be described as "civilized" (Hartt, 1885). A few of the villages of the Tapajós region are said to preserve as much of the old culture as can survive without military organization, warfare, and head hunting (Steinen, 1937).

The site of the tribe prior to its northward drive along the Tapajós is not definitely known. Krause (1934) believes that they lived adjacent to the *Apiacá* in Mato Grosso; Martius (1867) thought that language and customs pointed to an origin still further south. It is Nimuendajú's opinion (personal communication), however, that the *Mundurucú* were originally located on the Rio de Tropas, where their principal settlements are found today and where the punitive expedition of 1794 found their chief military strength. *Mundurucú* legend attributes their origin to the town of Necudemun in this area.

CULTURE

SUBSISTENCE ACTIVITIES

The *Mundurucú* subsist partly on horticulture and partly on hunting, fishing, and gathering. Tocantins' (1877) list of plants cultivated by them includes two species of manioc, sweet potato, pineapple, sugarcane, various peppers and beans, and several species of bananas. Other authors mention cotton, tobacco, and genipa. Tocantins names some 30 noncultivated plants utilized in *Mundurucú* economy. Martius (1867) says that this tribe formerly gathered wild rice along the Madeira and Ituxi Rivers. They eat ants, larvae, and honey.

Some of the *Mundurucú* now have cattle. Though they do not use these as food, they will eat the meat of domestic animals if it is offered them.

In the aboriginal culture, wild fowl were kept in cages to provide plumage for the featherwork described below.

The *Mundurucú* are said to show great affection for their dogs. Women suckle puppies; when a dog dies it is given the same form of burial as a human being.

There are no published descriptions of *Mundurucú* hunting techniques, but accounts of hunting rituals indicate that tapirs, peccaries, hares, deer, and agoutis are hunted. One ritual simulates the use of a runway of stakes to trap peccaries. Intensive hunting occurs during the summer, when many families occupy temporary huts in the brush.

8: Murphy & Steward E-5 (1952-1953) 1956

SQ13 Munduruca SQ13

unimportant. Otherwise, the husband visited his household for purposes of sex, to play with the children, or to take a between-meals snack.

Marital break-ups caused no great social maladjustment. The women and her children simply lived on in the household and took another husband. If the ex-husband was originally from the same village, he did not even have to move his hammock from the man's house. The husband and wife performed no economic tasks together, and the sexual division of labor operated mainly within the context of the village as a whole rather than the nuclear family.

The yearly cycle of activity of the pre-rubber period Munduruca was not patterned by wars and cold seasons as in Labrador, but by rainy and dry periods. At the end of each rainy season, April on the upper Tapajós River, the trees and vegetation in each projected garden were felled by a work party composed of all the men of the village and allowed to dry out. After clearing the forest, many families went in small groups to the larger streams where fishing was good during low waters and where they could hunt the many game animals which left the interior forests to feed and drink at the streams.

After two to three months it was necessary to return to the village to burn the felled vegetation in the garden clearings before the first rains wet the forests. After the early rains had sufficiently moistened the ground, individual gardens were planted to manioc by the cooperative efforts of all the men and women of the village. Other vegetables were planted by the women of the household of the man who initiated the gardens, and who was formally considered to own it.

Maize, squash, beans, and other vegetables were harvested by January or February and eaten immediately. The root crops, including bitter and sweet manioc, matured at the end of the rainy season in new gardens. A longer period of maturation was required for root crops in replanted gardens. Bitter and sweet manioc can be harvested as needed; this natural storage made these crops invaluable for year-around subsistence.

The bitter manioc, by far the most important garden product, required considerable labor to render it edible. The tubers were grated, the prussic acid was extracted by use of the tipiti, or basketry press, and the pulp was then toasted either in the form of the native beiju, a flat manioc cake, or of farinha, the coarse Brazilian manioc flour. Farinha was sold to Brazilian traders. All phases of manioc processing were carried out by the women of the communal family households, who worked together under the direction of the oldest woman of the house. The labor was divided according to specialized tasks which, however, probably contributed as much towards making the operation pleasant as efficient.

Farinha was thus a collective product in that it involved the communal labor of the village in garden clearing and manioc planting, and the efforts of the women of the household in processing. Moreover, it was sold to the traders by the village as a whole and not by individuals. In this barter the hereditary village chief represented the village, and the proceeds from the sale were divided equally among the contributing households.

Bates, the British naturalist, describes the scale in which this trade was conducted in the mid-nineteenth century, when the first small quantities of rubber were traded by the Munduruca along with larger amounts of other produce:

> "They [the Munduruca of the upper Tapajós River] make large plantations of manioc, and sell the surplus produce, which amounts on the Tapajós to from 2000 to 3000 baskets (60 lbs. each) annually, to traders who ascend the river from Santarem between the months of August and January. They

439 Munduruc\u00fa traded chiefly in manioc flour and wild products, and rubber was of secondary importance. Chandless' observation [1862, p. 277] that in 1860 the Munduruc\u00fa of the upper Tapajos "trade in salsa and sell provisions to the parties of India-rubber makers" indicates that important trade in articles other than rubber continued at least until 1860. Shortly after this date, however, the tempo of rubber extraction in the Amazon quickened, and in 1875, as Tocantins' account shows [1877, pp. 151-154], rubber was the most important Munduruc\u00fa product.

177 439 With the advent of the rubber trade, Munduruc\u00fa acculturation entered its second stage. During the first, when trade in manioc flour and certain wild products predominated, the hereditary chief mediated between the traders and his people, aboriginal social patterns were largely unchanged, and warfare was still vigorously prosecuted, frequently under the sponsorship of traders and colonial authorities. During the second stage, which lasted until 1914, warfare abated, the size of villages increased owing to migration, and European-introduced diseases, and the position of the hereditary chief was weakened by the imposition of appointed "chiefs". The period was characterized by a "loosening" of integration rather than by a change in mode of integration, or structure.

221 314 Work in the rubber avenues in the latter half of the nineteenth century did not upset the annual subsistence cycle as much as might be expected. Whereas many people had formerly left their villages during the dry season to hunt and fish along the streams, they now left to collect rubber. As in times past, they cleared their garden sites before leaving and returned to the village in time to burn them over and plant. The necessity to provide all their own subsistence limited the rubber producing season to three months, mid-June to mid-September, out of a possible seven. This parallels closely the earlier phases of Northeastern Algonkian fur production, when the Indian's need to obtain their own meat supply by aboriginal cooperative techniques limited fur production and conflicted with their increasing desire for Western manufactures [Leacock 1954, pp. 25-26].

[71]

439 177 During the nineteenth century (and to the present day) the Munduruc\u00fa, like the Algonkians and in fact most aborigines, had been acquiring a seemingly insatiable appetite for the utilitarian wares and trinkets of civilization. Firearms increased their efficiency in warfare and hunting, especially the individual hunting carried on during the rubber season when one or two families lived in isolation adjacent to their rubber trees. In communal hunts, the game could be surrounded and the range and velocity of the weapons were not so crucial to success. Other items, too, became necessities to the Munduruc\u00fa. Contrary to popular belief that nudity is beneficial to tropical peoples, there are various reasons why clothing is desirable in the Amazon. Insect stings greatly annoy the Indians, and at night the temperature drops to from 75° to 65° F. Clothing, however, is expensive, and only in recent years has it been used consistently in some Munduruc\u00fa villages. The movement toward covering the body entailed the development within two generations of a sense of shame comparable to that of Europeans. The Munduruc\u00fa, especially the women, have also acquired a desire for finery for the sake of display. They have also developed a taste for many strictly non-utilitarian goods, such as the Brazilian rum cane rum and the beads and ornaments purveyed by the traders.

[224]

[241]

A full and adequate description of the growth of Munduruc\u00fa dependence upon trade would require a separate treatise, for reliance upon manufactured goods entailed further dependence upon many adjuncts of these goods. For example, firearms required powder and lead, while garments of factory-woven cloth had to be made and repaired with scissors, thread, and needles. The substitution of metal pots for native ones of clay and of manufactured hammocks for the native product has reached the point where many young women now do not know how to make these articles. The Munduruc\u00fa barely remember that their forebears used stone axes and bamboo knives, and they would be helpless without the copper roasting pan used to make manioc flour.

[46] 323

8: Murphy & Steward E-5 (1952-1953) 1956
SQ13 Mundurucu SQ13

Despite the flourishing trade in gewgaws, the allure of most trade goods lay more in their sheer utility than in their exotic qualities. The increased efficiency of the Mundurucú economy made possible by steel tools must have been enormous. 439 177

The parallels in these basic processes of acculturation between the Mundurucú and the Montagnais are probably to be found also among most aborigines. In the case of the Mundurucú, the displacement of aboriginal crafts by commercial goods better suited to meet local needs, both old and new, inexorably led to increased dependency of the people upon those who furnished these goods and therefore to a greater involvement in ecdnomic patterns external to their own culture.

The Mundurucú families, like those of the Algonkians, became dependents of the trading posts. More than a century ago, Bates related that Brazilian traders made seasonal expeditions to trade with the Mundurucú. After rubber became important in the Amazon, permanent trading posts were established on the upper Tapajós River. These posts, whether owned by individuals or companies, exercised such control over tracts of rubber-producing forest that they compelled the rubber collector to trade exclusively with them. They accomplished this by their power of dispossession and by holding the collector in debt. The traders among the Mundurucú were never able to obtain title of ownership to the rubber regions within Mundurucú country proper,[2] but they made the Indians dependent upon them in a very real sense through their credit arrangements. In time, all of the Mundurucú villages came under the control of various traders, who were so influential by virtue of being necessary to the Indians that they were able to appoint the "chief", in violation of Indian tradition, and thereby intensified their control over the Indians.

The progressive weakening of the hereditary chief, whose authority was based upon aboriginal activities, was furthered by the decline in warfare. The post-white warfare, although frequently mercenary in character and auxiliary to Portuguese occupation and expansion, continued the native pattern of authority. The Indians were paid in trade goods. When, at the end of the nineteenth century, the central Amazon region had been pacified, the military help of the Mundurucú was no longer needed. Meanwhile, rubber collecting had become the principal means by which the Indians acquired foreign trade articles. Since the Indians were important to rubber production in labor-starved Amazonia, they were pushed to greater efforts by the traders. Increased devotion of the Mundurucu to rubber production correspondingly interfered with their warfare; for in earlier times the rubber season was the time for war. When in 1914 a Franciscan mission was established in their midst, the earlier political and economic basis of Mundurucú warfare was so undermined that the admonitions of the priests that they live in peace were quite effective. [622] 721 177 439 [797]

At the end of the second stage of Mundurucú acculturation, only bonds of kinship and economic collectivity in producing food for the group held Mundurucú society together. Much of the old structure was gone. The chieftaincy had been undermined, warfare had ended, and reliance upon the outside economy was taking effect. During the nineteenth century, increasing numbers of Mundurucú who had difficulties with their co-residents were able to leave their villages permanently. Many others left in order to participate more fully in the rubber economy. 177 621

Full dependency upon rubber collection is not compatible with village life. Since the aboriginal Mundurucú villages were located several days foot travel from the rubber areas fringing the rivers, a family participating both in collective village life and the rubber economy had to migrate seasonally between its village and its house in the rubber area. Families living in this manner could spend only three to four months in rubber production. The only way the Indians can devote their full efforts to rubber tapping is to leave the villages of the interior savannah and live permanently near the rubber trees along the river banks. A large [221] 314 361 177

177 346 TAPPERS AND TRAPPERS

34 portion of the Mundurucú, whose increased need of and desire for trade goods
34 could no longer be satisfied by the yield of only three months' work in the rubber avenues, have made this choice.

[182] These families represent the third stage of Mundurucú acculturation. Their resettlement in the rubber regions, however, has occurred in two ways. The first is a direct and complete adaptation to rubber collection, which can be studied in many contemporary inland villages. People desiring to increase their income from barter improve their rubber avenue house to make it more comfortable
[571] during the rains, plant gardens, and remain there. Although they maintain relationships with the inland villages, the loci of their social lives lie increasingly within the orbit of the communities of scattered families dependent upon the trading posts. The final step in their incorporation into the local Brazilian economy and the culmination of this acculturative process will come when they abandon horticulture to devote full time to work in the rubber avenues. and like their Brazilian neighbors and the western Montagnais, depend upon trade for the bulk of their food supply.

The second mode of readaptation to the rubber economy, while ending in the same type of settlement pattern and social organization as the first, involves
177 passage through an intermediate stage. The previously mentioned mission on the
747 Cururú River had indifferent success in attracting the Mundurucú until the 1920s, when a policy of trading with the Indians was adopted. The missionaries were honest and generous in their commercial relations, and rubber-tapping became more profitable to the Indians. Their intensified collecting activities resulted in a general movement to the banks of the Cururú River, and by the 1930s many interior villages had been abandoned.

177 The migrants settled so heavily on the river banks that they were able to
621 nucleate in new villages. These villages, however, lacked the men's organiza-
584 tion, division of labor, and collective patterns which structured the old type villages. Although the population shift from the old to new villages was heavy, it involved individual families rather than whole villages. The new villages grew as additional nuclear families arrived from the savannah communities. During this period of growth, since the new villages consisted of families, many of which had not previously been connected with one another, each family had to carry on the subsistence activities which were formerly the function of the extended family and village. Gardens were cleared and planted by husband and wife with whatever aid their children were capable of giving. Fish, taken by family members from the nearby rivers, rapidly replaced game formerly taken in collective hunts as the major source of protein. Meanwhile, increased rubber production enabled the Indians to buy the hooks, lines, and canoes with which fishing was made more effective. As the new villages grew larger, the atomistic division of labor was perpetuated, and the nuclear family became the basic unit of production.

621 Political authority on the Cururú River was almost nonexistent. The migrants
178 began to trade as individuals, first with the missionaries and later with the newly established Indian Post. This economic trend stripped the "chiefs" of one of their last remaining functions, and their role was reduced to that of intermediary between the villagers and the priests and Indian agent.

The amorphously structured villages which arose on the banks of the Cururú River represent a transition to the family level and are not the culmination of
● [221] adaptation to the ecology of rubber collection. Most of the residents of the Cururú River still have to reside many from their villages during the rubber season, but the easy communication made possible by canoe transportation allows the majority to return to rubber production after planting their gardens.

The new individualism and fragmented division of labor, combined with facets of the old culture which had become dysfunctional in the new situation, contributed

12: Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

Second, warfare, for both mercenary
pay and trophy heads, persisted on a somewhat reduced 175
scale and was especially successful, as Hartt notes, because 182
of the acquisition of firearms.[38] The continuance of warfare 648
helped to maintain the cohesion of the tribe and village as 721
social units for the reasons already discussed, and also be-
cause it bolstered the positions of the chiefs by activating [622]
their roles as war leaders.

The Mundurucú who remained in their traditional vil- 175
lages in the savannahs east of the upper Tapajós were not 439
as completely absorbed into the invading Brazilian so- 648
ciety as the people who migrated to the river banks to tap [177]
rubber. But they, too, sought trade goods, and these, in-
creasingly, were available only through rubber production.
The most troublesome tribes of the region were largely
pacified, and the demand for Mundurucú military service
had consequently declined. Also, the Indians were more 175
valuable to the traders in collecting rubber, which by the 464
end of the century was netting the traders fabulous mon- 648
etary returns. The recruitment of Indians into rubber col- 221
lecting did not cause the immediate disintegration of their
village life. Rubber was collected by them only from June
to September, during which period they left their savan-
nah villages to live in temporary shelters at their rubber
avenues. This seasonal fractionation of the society had a
precedent in the traditional practice of scattering along
the streams to hunt and fish during the dry season. As in
times past, when rubber collection was finished, the dis-
persed population reunited in their villages, where the na-
tive round of activities persisted throughout the remain-
ing nine months of the year.

The Mundurucú territory also shrunk, for traditional- 131
type villages no longer existed on the waters of the 175
Crepory River in 1895 when Coudreau ascended the Ta-

[38] Hartt, 1885, p. 131.

12: Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

the rainy season to fish by wading through the *igapó*, or flooded forest—impractical because of poisonous and constrictor water snakes, covered roots and logs, and the virtual assurance of failure. 226

These formidable obstacles restrict the savannah people to one or two trips per rainy season to streams where small fish are taken by drugging. The yield is unimportant in the total rainy season diet, and the expeditions do little more than satisfy a desire for variety in food. Fishing is quite important during the dry season, however, when the people move to their rubber-avenue homes on the banks of large streams. This, as has been mentioned, represents a continuation and intensification of a pattern that predates the rubber trade; in those times, the villagers spent several weeks every dry season in temporary camps along the rivers, where they hunted and caught fish. [221]

Dry-season fishing is done by two means. The first is to fish from the river bank with bow and arrow. To facilitate this technique, platforms are often built in the limbs of trees overhanging the water. The Mundurucú have great skill in fishing with the bow and arrow, and it is preferred to the hook and line, which was introduced by the whites and is only used during the rainy season when the fish are scarcer and at a greater depth, and the turgid flood waters make the bow and arrow useless. [177]

A second and equally important method is by poisoning the waters of lakes and medium sized streams with *timbó*, a generic term for a variety of fish poisons used throughout the Amazon. The timbó paralyzes the gills of the fish and suffocates it, but the fish remains edible as it does not become poisoned internally. Timbó is found in wild form in forest lianas, but the Mundurucú use

12:Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

the Tropas, but some do business with the trader of São Martinho, on the Tapajós. The people of Cabruá live in three separate hamlets on the Tropas. At one, the most powerful shaman of the village lives with two younger men of his household, and another is occupied by another man of the same house and his son-in-law. These two men trade on behalf of their rubber-avenue co-residents, and the chief of Cabruá is not considered to be their representative in trade. The Cabitutú River has only one or two all-year residents, and these are Brazilian. A number of families of Brazilians and eight Mundurucú families maintain regular homes on the Tropas, however. The latter Mundurucú associate to a varying extent with the villagers during the rubber season and occasionally come to Cabruá to seek the services of a shaman or simply to visit, but they remain marginal to village life.

The Mundurucú of the savannah communities collect less rubber than those of the Cururú and far less than the the Brazilian tappers. The latter generally commence production as soon as the flood recedes in May or early June and collect until the rains and rising waters make their rubber avenues inaccessible in November or December. The efforts of the campineiros, however, are limited by their alternating residence between village and rubber-avenue dwelling. The residents of Cabruá have to clear land for gardens before they may depart, and this generally holds them until May. But only the more industrious Mundurucú leave at this time; many linger in the village until June or July, and in 1952 one man stayed until August. Rubber is collected until August, at which time the trees lose their leaves, and the yield drops off sharply for two to three weeks. Some Indians use this occasion to return to the village to burn the felled vegetation in their garden sites and then return to the rubber avenue until

12: Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

planting time a few weeks later; most, however, stay in the village. The average collecting season of the savannah Mundurucú thus lasts about two and a half to three months out of a possible period of six months.

The dwellings in which the collecting season is passed frequently consist only of a roof set on four or six upright posts, but others are larger and have walls of mud or palm leaves. Cooking is generally done in a shed connected to the rear of the house, in imitation of the typical north Brazilian kitchen. The rubber-avenue dwellings often house but one nuclear family, but if a larger group resides in the same house, all members of the nuclear family hang their hammocks adjacent to one another.

There is no firm rule dictating the composition of the membership of rubber-avenue dwellings. Residents of the same household tend to cling together during the dry season, but the limited number of rubber avenues accessible from one dwelling break up the larger extended families. In such cases, closer kinsmen within a household remain together. The availability of rubber avenues, in general, makes any strict rule of dry-season residence impracticable. They are limited in number, and a young man embarking on independent rubber collection must reside where an avenue is vacant.

The average Brazilian collector spends five or six days a week in his rubber avenue, but the campineiro rarely works more than four. And while a single Brazilian may have up to three separate avenues, working each on different days, no campineiro has more than one. Indisposition to intensive labor in rubber production thus combines with the maintenance of savannah-village residence to keep Mundurucú productivity low. The Indian collector leaves the house for his avenue early in the morning and generally returns by mid-afternoon. Besides his knife for

12:Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

lages and easy transportation is lacking. But on the Cu- 439
rurú, even the man who has a separate dry-season resi- 461
dence has direct access to his village by canoe.

THE CURURÚ VILLAGE

The Mundurucú population of the Cururú River has for 162
several years maintained an average figure of 700. This in- 361
cludes 200 Indians with permanent residences at the mis-
sion and 70 to 80 who live at the Indian post. Part of these [221]
latter two groups spread out every summer to collect rub-
ber while the others work for the two agencies as garden-
ers, general workmen, fishermen, and crew members on
the launches. The post and mission Mundurucú settle-
ments are in no way autonomous villages, and all general
economic and political direction is provided by the Indian
agent and the priests.

The rest of the population is principally distributed in eleven settlements ranging in size from hamlets of two or three houses with populations of 20 to 25 people to the largest settlement, Missão Velha,[1] with eleven houses and 90 inhabitants. In addition there are many scattered dwellings along the banks which are the all-year residences of one or two nuclear families. In 1942 there were only about seven villages on the Cururú and practically no isolated dwellings, although the population then was substantially the same. The increase in number of villages and of families living in isolation is the result of a fission process in which segments of villages split away to form new communities. The Cururú River settlements are in this sense more unstable than the contemporary savannah communities. Thus, the average population of the five traditional savannah villages, excluding Parawaröktiká, which has no

[1] Old Mission. So named because it is near the site of the first mission, abandoned in 1921.

● 221

[For a discussion of the cycle of activities involved in gardening, see category 116, pp. 6-21.]

/9/

*241 313 4. Felling--yup chign or yup chichign. The felling of the trees is almost an art in itself, for doing it in good style requires knowledge and ability, a steady eye and calculation, especially as to how the trees will fall or how they must be cut in order to fall in the most desirable way. There is a certain method involved in felling trees: a larger tree is chosen (whenever possible, in one of the corners, or at least on one of the higher sides of the ground), and an imaginary line is drawn enclosing a strip /of ground/ that broadens out in the shape of a wedge. Within this strip, all trunks are chopped about halfway through, until they begin to snap. But the larger tree is chopped last, all the way through, and felled. It falls on the neighboring, half-cut trees, dragging them down in its fall, and through them all the other trunks within the chosen and prepared wedge. An entire strip of forest thus goes down at one fell swoop with a big noise, opening an enormous clearing, sometimes 100 meters long or more. Then, whatever timber may have been left standing is felled, and so are the remaining corners, "to straighten out the shape," rounding off or squaring off the plot. But "only these are cut down one by one."

• [221] The felling of trees is usually carried out in April and May. The time of felling is determined by that of clearing, which precedes it by about two to four weeks. As a rule, the Munduruků takes three days' work to do the felling on an average plot.

*241 372 5. The burning—imapign. The vegetation felled to clear the new plot is kept "resting" for two months or more, in order to dry thoroughly. The Munduruků usually burn their clearings around the month of August. They grant the sun sufficient time to dry even the larger trunks. This relatively long spell /is granted/ so that the vegetation may burn as thoroughly as possible. The burning then becomes a light and easy task. Whatever trunks may still chance to remain after the burning are left right there, and are frequently utilized as a source of firewood for the village or house. As a rule, the plots of the Munduruků are quite thoroughly burned.

/10/ To set the fire, they choose a breezy day when the wind is not too strong. Thus the breeze feeds the flames but does not allow

/10 cont./

*241 372 them to work too quickly, or else they would merely burn the small branches and foliage and leave the trunks intact. The trees would be charred rather than burned.

To set the brush on fire, the Munduruků use torches made of dry straw or of certain resinous woods. With them, they set fire to various parts of the clearing. If there are other gardens or even houses nearby, and danger that the fire may reach them, they often [816] burn first a narrow strip of brush lying below the wind, so that later on the great fire in the clearing will meet a firebreak and will not go on to the neighboring forest or house. As a rule, they also prefer to burn the clearings before they set fire to the grasslands, as is their [821] custom. According to them, the burning of huge expanses of grasslands would attract rainfalls that would interfere with the burning of the clearings.

6. The remaining brush. Taipa is "the brush"; "to pile up the brush" — taipa chign or taipa chichign; "to burn the brush" — taipa mapign or simply imapign, "to burn."

While the thin branches and trunks burn within hours or within a day, the larger trunks take longer, burning down slowly. Then comes the turn of the remaining brush. Foliage, branches, and pieces of timber which have not burned up completely are gathered together and piled up on top of the thicker, still smoldering trunks, the better to destroy them. Then fire is set once more to this pyre, in order to reduce the remaining timber to ashes and clear the ground for planting.

Like all garden tasks, the burning, the piling up of the brush, and the burning of the pyre require practice and ability. Otherwise the Indian will get a poorly burned field.

*24 ● [221] 7. Digging and planting. Next comes the time of planting, in the month of September or October, depending on the first rains. Men and women go to the new plot to plant together. Planting is a dual task consisting of two distinct acts: digging or opening up the ground, and planting, /11/ that is to say, slipping the bitter-manioc [462] shoots into the ground. The first task is the man's, the second the woman's.